

EXHIBIT A

CLAIMS 1-49, 55, 57-61, 64-68, 73 AND 77-92 OF APPLICATION 09/472,134

1. (Thrice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider with a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the snowmobile has a first center of gravity without the rider and a second center of gravity with the rider in the standard position, and

wherein a distance between a vertical line passing through the first center of gravity and a vertical line passing through the second center of gravity is between 0 cm and 14 cm.

2. (Amended) The snowmobile of claim 1, wherein the distance is between 2 and 12 cm.

3. (Amended) The snowmobile of claim 2, wherein the distance is between 4 and 10 cm.

4. (Amended) The snowmobile of claim 3, wherein the distance is between 5 and 7 cm.

5. (Amended) The snowmobile of claim 4, wherein the distance is 5 cm.

6. (Thrice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider with a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the snowmobile has a first center of gravity without the rider and a second center of gravity with the rider in the standard position, and

wherein a line passing through the first center of gravity of the snowmobile and the second center of gravity forms an angle with horizontal that is between 35 and 90°.

7. (Amended) The snowmobile of claim 6, wherein the angle is between 50 and 90°.

8. (Amended) The snowmobile of claim 7, wherein the angle is between 62 and 90°.

9. (Amended) The snowmobile of claim 8, wherein the angle is 67°.

10. (Thrice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

a forward-most drive track axle disposed on the frame;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider with a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile; and

wherein a distance between a vertical line passing through the forward-most drive track axle and a vertical line passing through the center of gravity of the rider in the standard position is between 15 and 65 cm.

11. (Amended) The snowmobile of claim 10, wherein the distance is between 25 and 55 cm.

12. (Amended) The snowmobile of claim 11, wherein the distance is between 35 and 55 cm.

13. (Amended) The snowmobile of claim 12, wherein the distance is between 37 and 47 cm.

14. (Amended) The snowmobile of claim 13, wherein the distance is 40 cm.

15. (Amended) The snowmobile of claim 14, wherein the distance is 45 cm.

16. (Thrice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

a forward-most drive track axle disposed on the frame;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider having a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile; and

wherein a line passing through the forward-most drive track axle and the center of gravity of the rider in the standard position forms an angle with horizontal that is between 41 and 75°.

17. (Amended) The snowmobile of claim 16, wherein the angle is between 45 and 65°.

18. (Amended) The snowmobile of claim 17, wherein the angle is between 50 and 60°.

19. (Amended) The snowmobile of claim 18, wherein the angle is 55°.

20. (Thrice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support suitable for a standard rider with a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the snowmobile has a center of gravity without the rider, and

wherein a distance between a vertical line passing through the center of gravity of the snowmobile without the rider and a vertical line passing through the center of gravity of the rider in the standard position is between 5 and 55 cm.

21. (Amended) The snowmobile of claim 20, wherein the distance is between 15 and 45 cm.

22. (Amended) The snowmobile of claim 21, wherein the distance is between 25 and 45 cm.

23. (Amended) The snowmobile of claim 22, wherein the distance is between 27 and 37 cm.

24. (Amended) The snowmobile of claim 23, wherein the distance is 30 cm.

25. (Amended) The snowmobile of claim 24, wherein the distance is 35 cm.

26. (Thrice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider having a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the snowmobile has a center of gravity without the rider, and

wherein a line passing through the center of gravity of the snowmobile without the rider and the center of gravity of the rider in the standard position forms an angle with horizontal that is between 39 and 79°.

27. (Amended) The snowmobile of claim 26, wherein the angle is between 49 and 69°.

28. (Amended) The snowmobile of claim 27, wherein the angle is between 54 and 64°.

29. (Amended) The snowmobile of claim 28, wherein the angle is 59°.

30. (Twice Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider with a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the snowmobile has a center of gravity with the rider, and

wherein a distance between a vertical line passing through the center of gravity of the snowmobile with the rider and a vertical line passing through the center of gravity of the rider in the standard position is between 0 and 50 cm.

31. (Amended) The snowmobile of claim 30, wherein the distance is between 10 and 40 cm.

32. (Amended) The snowmobile of claim 31, wherein the distance is between 20 and 40 cm.

33. (Amended) The snowmobile of claim 32, wherein the distance is between 22 and 32 cm.

34. (Amended) The snowmobile of claim 33, wherein the distance is 25 cm.

35. (Amended) The snowmobile of claim 34, wherein the distance is 30 cm.

36. (Thrice Amended) A snowmobile, comprising:

- a frame;
- an engine disposed on the frame;
- a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;
- two skis disposed on the frame;
- a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider having a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male; and
- a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the snowmobile has a center of gravity with the rider, and

wherein a line passing through the center of gravity of the snowmobile with the rider in the standard position and the center of gravity of the rider in the standard position forms an angle with horizontal that is between 35 and 84°.

37. (Amended) The snowmobile of claim 36, wherein the angle is between 45 and 75°.

38. (Amended) The snowmobile of claim 37, wherein the angle is between 55 and 70°.

39. (Amended) The snowmobile of claim 38, wherein the angle is 57°.

40. (Four Times Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a steering device disposed on the frame and spaced forward of the seat such that, when the rider grasps the steering device in the standard position, the rider's torso is tilted toward the steering device and the rider's arms extend toward the steering device with the rider's elbows substantially over the rider's feet;

two skis disposed on the frame and operatively connected to the steering device for steering the snowmobile; and

a footrest disposed below each side of the seat, each said footrest being dimensioned with respect to the seat and the steering device to support the rider's foot thereon,

wherein, for the standard rider in the standard position, the seat defines a seat position, the steering device defines a steering position, and the footrests define a footrest position,

wherein a line passing through the seat position and the steering position forms angle α with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle β with the line passing through the footrest position and the seat position,

wherein the line passing through the footrest position and the steering position forms angle γ with the line passing through the steering position and the seat position, and

wherein angle α is between 63 and 152°, angle β is between 16 and 84°, and angle γ is between 11 and 42°.

41. (Amended) The snowmobile of claim 40, wherein angle α is between 67 and 112°, angle β is between 41 and 72°, and angle γ is between 22 and 45°.

42. (Amended) The snowmobile of claim 41, wherein angle α is between 75 and 97°, angle β is between 52 and 67°, and angle γ is between 30 and 41°.

43. (Amended) The snowmobile of claim 42, wherein angle α is 83°, angle β is 64°, and angle γ is 33°.

44. (Four Times Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a steering device disposed on the frame and spaced forward of the seat such that, when the rider grasps the steering device in the standard position, the rider's torso is tilted toward the steering device and the rider's arms extend toward the steering device with the rider's elbows substantially over the rider's feet;

two skis disposed on the frame and operatively connected to the steering device for steering the snowmobile; and

a footrest disposed below each side of the seat, each said footrest being dimensioned and configured with respect to the seat and the steering device to support the rider's foot thereon;

wherein, for the standard rider in the standard position, the seat defines a seat position, the steering device defines a steering position, and the footrests define a footrest position,

wherein a line passing through the seat position and the steering position forms angle α with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle β with the line passing through the footrest position and the seat position,

wherein the line passing through the footrest position and the steering position forms angle γ with the line passing through the steering position and the seat position,

wherein angle α , angle β , and angle γ satisfy the relationship $\alpha \geq \beta \geq \gamma$; and

wherein a distance between vertical lines passing through the steering position and the seat position is between 40-90 cm.

45. (Four Times Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a steering device disposed on the frame and spaced forward of the seat such that, when the rider grasps the steering device in the standard position, the rider's torso is tilted toward the steering device and the rider's arms extend toward the steering device with the rider's elbows substantially over the rider's feet;

two skis disposed on the frame and operatively connected to the steering device for steering the snowmobile; and

a footrest disposed below each side of the seat, each said footrest being dimensioned and configured with respect to the seat and the steering device to support the rider's foot thereon;

wherein, for the standard rider in the standard position, the seat defines a seat position, the steering device defines a steering position, and the footrests define a footrest position,

wherein a line passing through the seat position and the steering position forms angle α with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle γ with the line passing through the steering position and the seat position, and

wherein $\alpha \approx 2.5\gamma$.

46. (Four Times Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat and the rider's thighs are substantially parallel to ground while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a steering device disposed on the frame and spaced forward of the seat such that, when the rider grasps the steering device in the standard position, the standard rider's torso is tilted toward the steering device and the rider's arms extend toward the steering device with the rider's elbows substantially over the rider's feet; and

two skis disposed on the frame and operatively connected to the steering device for steering the snowmobile;

wherein the seat defines a seat position and the steering device defines a steering position for the standard rider in the standard position, and

wherein a line passing through the steering position and the seat position forms an angle ϕ with horizontal that is between 15 and 51°.

47. (Amended) The snowmobile of claim 46, wherein angle ϕ is between 19 and 41°.

48. (Amended) The snowmobile of claim 47, wherein angle ϕ is between 23 and 31°.

49. (Amended) The snowmobile of claim 48, wherein angle ϕ is 26°.

55. (Thrice Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the

snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a steering device disposed forward of the seat;

two skis disposed on the frame and operatively connected to the steering shaft for steering the snowmobile; and

a windshield disposed forward of the steering device, the windshield having a top;

wherein the seat defines a seat position and the steering device defines a steering position for the standard rider in the standard position, and

wherein a line between the steering position and the seat position forms an angle μ with a line between the seat position and the top of the windshield that lies between 10° and 20°.

57. (Amended) The snowmobile of claim 55, wherein angle μ is 18°.

58. (Thrice Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a steering device disposed forward of the seat;

two skis disposed on the frame and operatively connected to the steering device for steering the snowmobile; and

a windshield disposed forward of the seat, the windshield having a top;
wherein, when in motion, the windshield defines a laminar flow region of moving air
that extends upwardly and rearwardly from the top thereof, and
wherein, when seated in the seat and when grasping the steering device in the standard
position, the rider's head is positioned within the laminar flow region.

59. (Thrice Amended) A snowmobile, comprising:

- a frame including a pair of footrests;
- a straddle seat disposed on the frame;
- an engine disposed on the frame in front of the seat;
- two skis disposed on the frame;
- a forward-most drive track axle disposed on the frame forward of the pair of footrests;

and

- a steering device disposed on the frame forward of the forward-most drive track axle,
the steering device being operatively connected to the two skis for steering the snowmobile.

60. (Four Times Amended) A snowmobile, comprising:

- a frame having a forward-most drive track axle disposed thereon;
- a straddle seat disposed on the frame;
- an engine disposed on the frame in front of the seat;
- two skis disposed on the frame; and

- a steering device disposed on the frame and operatively connected to the two skis for
steering the snowmobile;

- wherein the snowmobile has a center of gravity without a rider and the steering device
is disposed on the frame forward of the center of gravity, and wherein the forward-most axle

is positioned forward of the center of gravity and rearward of a rearward-most portion of the steering device such that the center of gravity is rearward of the rearward-most portion of the steering device.

61. (Four Times Amended) A snowmobile, comprising:

a frame having a forward-most drive axle mounted thereon;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

two skis disposed on the frame; and

a steering device disposed on the frame and operatively connected to the two skis for steering the snowmobile;

wherein the snowmobile is adapted to have a center of gravity with a rider in the standard position such that the steering device and the forward-most drive axle are disposed on the frame forward of the center of gravity, and such that the forward-most drive axle is positioned rearward of a rearward-most portion of the steering device so that the center of gravity is rearward of the rearward-most portion of the steering device.

64. (Thrice Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard seat position in which the standard rider straddles the seat while

the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

two skis disposed on the frame; and

a steering device disposed on the frame and forward of the seat defining a steering position for the standard rider in the standard seat position, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein a distance between vertical lines passing through the steering position and the standard seat position is between 40 and 90 cm.

65. (Amended) The snowmobile of claim 64, wherein the distance is between 50 and 80 cm.

66. (Amended) The snowmobile of claim 65, wherein the distance is between 60 and 80 cm.

67. (Amended) The snowmobile of claim 66, wherein the distance is 65 cm.

68. (Amended) The snowmobile of claim 67, wherein the distance is 70 cm.

73. (Four Times Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame;

an engine disposed on the frame in front of the seat;

two skis disposed on the frame;

a steering device disposed on the frame and operatively connected to the two skis for steering the snowmobile; and

right and left sideboards extending laterally from the frame below the seat on either side thereof, each of the sideboards having a forward portion suitable for placement of a rider's foot thereon, the forward portion of each sideboard disposed at an angle Δ with horizontal that is -5° to -10° ; and

right and left toe-holds disposed respectively above the rider's toes in a vertical plane for allowing the rider to releasably secure himself to the snowmobile.

77. (Thrice Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

a drive track operatively coupled to the engine, the drive track including a belt entrained about at least two axles, including a forward-most axle;

two skis disposed on the frame;

a steering device disposed on the frame forward of the seat and operatively connected to the two skis for steering the snowmobile; and

right and left sideboards extending laterally from the frame below the seat on either side thereof, each of the sideboards having a forward portion suitable for placement of a rider's foot thereon,

wherein, for the standard rider in the standard position, the seat defines a seat position, the steering device defines a steering position forward of the forward-most axle of the drive track, and the forward portions of the sideboards define a footrest position,

wherein a line passing through the seat position and the steering position forms angle α with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle β with the line passing through the footrest position and the seat position,

wherein the line passing through the footrest position and the steering position forms angle γ with the line passing through the steering position and the seat position, and

wherein angle α is between 63 and 152°, angle β is between 16 and 84°, and angle γ is between 11 and 42°.

78. (Amended) The snowmobile of claim 77, wherein angle α is between 67 and 112°, angle β is between 41 and 72°, and angle γ is between 22 and 45°.

79. (Amended) The snowmobile of claim 78, wherein angle α is between 75 and 97°, angle β is between 52 and 67°, and angle γ is between 30 and 41°.

80. (Amended) The snowmobile of claim 79, wherein angle α is 83°, angle β is 64°, and angle γ is 33°.

81. (Four Times Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

two skis disposed on the frame;

a steering device operatively connected to the two skis, the steering device being spaced forward of the seat such that, when the rider grasps the steering device in the standard position, the standard rider's torso is tilted toward the steering device and the rider's arms extend toward the steering device with the rider's elbows substantially over the rider's feet; and

a sideboard extending laterally from the frame below each side of the seat, each said sideboard having a forward portion dimensional and configured with respect to the seat and the steering device to support a rider's foot thereon,

wherein, for the standard rider in the standard position, the seat defines a seat position, the steering device defines a steering position, and the forward portion of each said sideboard defines a footrest position,

wherein a line passing through the seat position and the steering position forms angle α with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle β with the line passing through the footrest position and the seat position,

wherein the line passing through the footrest position and the steering position forms angle γ with the line passing through the steering position and the seat position, and

wherein angle α , angle β , and angle γ satisfy the relationship $\alpha \geq \beta \geq \gamma$.

82. (Four Times Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame, the seat being dimensioned to support a standard rider in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male;

an engine disposed on the frame in front of the seat;

two skis disposed on the frame;

a steering device operatively connected to the two skis, the steering device being spaced forward of the seat such that, when the rider grasps the steering device in the standard position, the standard rider's torso is slightly tilted toward the steering device and the rider's arms extend toward the steering device with the rider's elbows substantially over the rider's feet; and

a sideboard extending laterally from each side of the frame below the seat, each said sideboard having a forward portion dimensioned and configured with respect to the seat and the steering device to support a rider's foot thereon,

wherein, for the standard rider in the standard position, the seat defines a seat position, the steering device defines a steering position, and the forward portions of the sideboards define a footrest position,

wherein a line passing through the seat position and the steering position forms angle α with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle γ with the line passing through the steering position and the seat position, and

wherein $\alpha \approx 2.5\gamma$.

83. The snowmobile of any one of claims 77 to 82 further comprising:

right and left toe-holds disposed respectively above the forward portion of each sideboard for allowing the rider to releasably secure himself to the snowmobile.

84. A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard load having dimensions and weight of a 50-percentile human male, the load having a center of gravity in a standard position in which the standard load straddles the seat while the snowmobile is on flat terrain;

a footrest positioned on each side of the seat; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the seat, each said footrest and the steering device are positioned and dimensioned with respect to one another so that the snowmobile 1) has a first center of gravity without the standard load and 2) has a second center of gravity when the standard load is in the standard position, and

wherein a distance between a vertical line passing through the first center of gravity and a vertical line passing through the second center of gravity is between 0 cm and 14 cm.

85. (New) A snowmobile having a center of gravity without a rider, comprising:
a frame including a pair of footrests each defining a forward-most surface, the frame including a tunnel defining an upper-most surface;
a straddle seat disposed on the frame;
an engine disposed on the frame in front of the seat;
two skis disposed on the frame; and
a forward-most drive track axle disposed on the frame forward of the pair of footrests and forward of the center of gravity,

wherein an angle between a line passing through the forward-most drive track axle and the center of gravity and a horizontal line passing through the forward-most drive track axle is less than 55° ;

wherein the center of gravity is positioned below the upper-most surface of the tunnel,
and

wherein the center of gravity is positioned in substantial alignment with the forward-most surface of each of said pair of footrests.

86. (Amended) A snowmobile, comprising:

a frame;

a straddle seat disposed on the frame;

an engine disposed on the frame in front of the seat;

two skis disposed on the frame;

right and left sideboards extending laterally from the frame below the seat on either side thereof, each of the sideboards having a forward portion disposed at an angle Δ with horizontal that is -5° to -10° ; and

right and left toe-holds associated with the right and left sideboards to allow the rider to releasably secure himself to the snowmobile.

87. (New) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

two skis disposed on the frame;

a straddle seat disposed on the frame behind the engine, the seat being dimensioned to support a standard rider with a center of gravity in a standard position in which the standard rider straddles the seat while the snowmobile is heading straight ahead on flat terrain, the standard rider having dimensions and weight of a 50-percentile human male; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein the snowmobile has a first center of gravity without the rider and wherein the snowmobile is adapted to have a second center of gravity with the rider in the standard position such that, in use, a distance between a vertical line passing through the first center of gravity and a vertical line passing through the second center of gravity is between 0 cm and 14 cm.

88. (New) The snowmobile of claim 40, further comprising a tunnel and an endless drive track housed within the tunnel, the endless drive track being operatively coupled to the engine.

89. (New) A snowmobile, comprising:
a frame including a tunnel having a forward-most drive track axle disposed thereon;
a straddle seat disposed on the frame above the tunnel;
an engine disposed on the frame in front of the seat;
two skis disposed on the frame; and
a steering device disposed on the frame and operatively connected to the two skis for steering the snowmobile;

wherein the snowmobile has a center of gravity without a rider, and wherein the center of gravity and the forward-most drive track axle are positioned rearward of a rearward-most portion of the steering device.

90. (New) A snowmobile, comprising:
a frame;
a straddle seat disposed on the frame;
an engine disposed on the frame in front of the seat;
a steering device disposed on the frame and spaced forward of the seat;
two skis disposed on the frame and operatively connected to the steering device for steering the snowmobile; and
a footrest disposed below each side of the seat;
wherein, for the standard rider in the standard position, the seat defines a seat position, the steering device defines a steering position, and the footrests define a footrest position,

wherein a distance between vertical lines passing through the steering position and the seat position is between 40-90 cm.

91. (New) The snowmobile of claim 60, wherein the frame includes a tunnel, and the forward-most drive track axle is positioned on the tunnel.

92. (Amended) An assembly comprising:

a frame including a tunnel;

a straddle seat mounted on the frame;

an engine disposed on the frame in front of the seat;

two skis disposed on the frame;

a steering shaft operatively connected to the two skis, the steering shaft being disposed over the engine at an angle ε of between 25° and 40° from vertical;

wherein the tunnel supports a drive belt coupled to the engine and defines a footrest on each side of the seat that is inclined at an angle Δ with horizontal that is between 0° to -10° ; and

wherein a forward-most axle of the drive belt is positioned rearward of the steering device.